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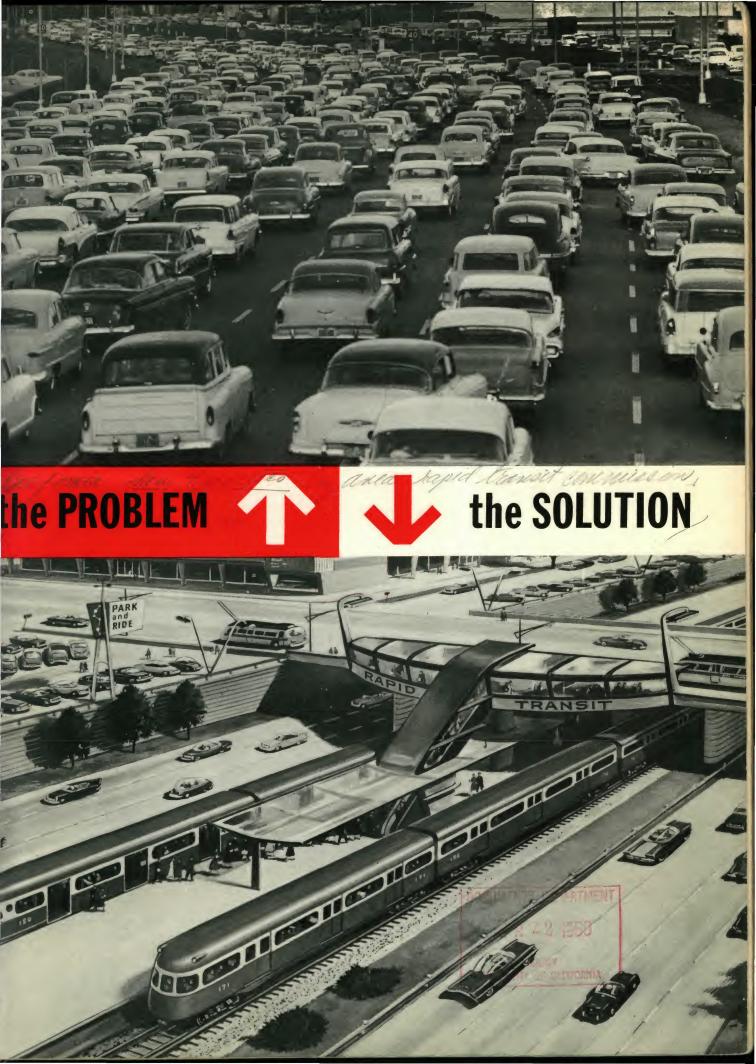
Preliminary draft of proposed report to the Legislature on rapid transit-freeway coordination and construction of an underwater trans-Bay transit tube. 1958.

The problem - the solution. 1959?1

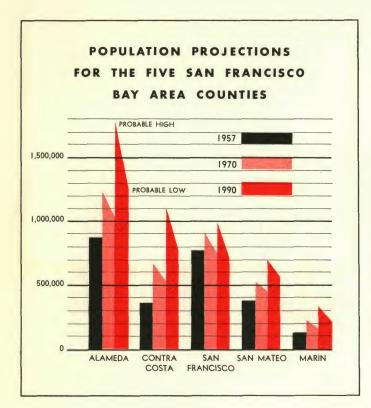
Rail rapid transit and the private automobile. A statement by John M. Peirce, General Manager, San Francisco Bay area rapid transit district, presented to the Legislature and Highway committees of the California State Automobile association, Whitcomb Hotel, San Francisco, February 20, 1959. 1959.

Rapid transit moves ahead. 1961.

Solving interurban travel problems in the Bay area. Questions and answers on the report "Regional rapid transit" for the San Francisco Bay area. 1955?







THE PROBLEM

Too many people and too many automobiles! And more of both are coming daily. We're adding population at a rate equal to the addition of a new city of 30,000 swiftly, economically and safely. It could accommodate every 100 days. The suburbs are booming with new residents and new industries. But the central cities are whose home-to-work trips create the most critical con-

1990, it might reach 7,000,000-more than double the lane per hour in automobiles. The capacity of city present figure. The prospect is frightening, for if auto-streets is much less. In addition, mid-day parking must mobile ownership continues just at its *present* level, there will be 3,500,000 automobiles instead of the more than are required for RAPID TRANSIT patrons. 1,300,000 now-and strangulation of our city streets and freeways instead of mere congestion.

What's more, the majority of the coming population will have to build their homes on now-vacant land farther and farther from the central core of jobs, entertainment, recreation and culture around the rim of the Bay. That means more trips, longer trips, more congestion.

The highway builders frankly admit they can't cope with the situation by themselves. There just isn't enough room or enough money to build all the freeways, interchanges, access ramps and parking facilities that would be required to accommodate all of the future population in automobiles alone. Not if the Bay Area is to continue to prosper, provide a wealth of job opportunities, and be in the future the delightful place it is today in which to live and work and raise a family.

What is needed is a supplemental transportation system to take the major load off of the freeways and city streets, thereby permitting them to function properly during the critical 20 hours a week when masses of workers are moving between their homes and their jobs cause its high-speed - 70-mile-per hour - trains would

THE SOLUTION: RAPID TRANSIT

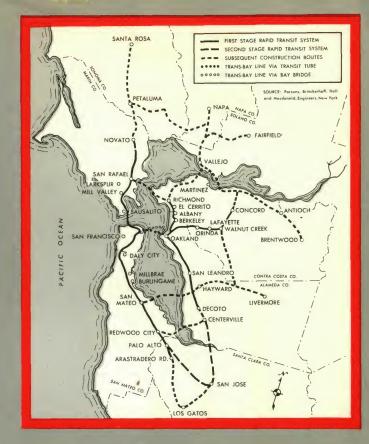
growing also as more and more big buildings go up to accommodate increasing centralized functions of all types. for trucks and those who *must* drive their cars.

Experts say that by 1970 Bay Area population will be a sourced from about 3,500,000 to about 4,800,000. By alone. They have a capacity of only 2,400 people per Freeways cannot take care of this rush hour traffic

> The accompanying map shows the regional RAPID TRANSIT system suggested for the Bay Area. It is degned to improve circulation by eliminating congestion to make Bay Area streets and highways safer . . . to prove business in all areas by making all areas more essible . . . to promote the growth of already estabhed communities . . . to discourage unorganized, unanned and inefficient metropolitan "sprawl"... to make possible for people to live where they want and to work ere they want with the assurance that they can travel all other parts of the Bay Area swiftly, economically

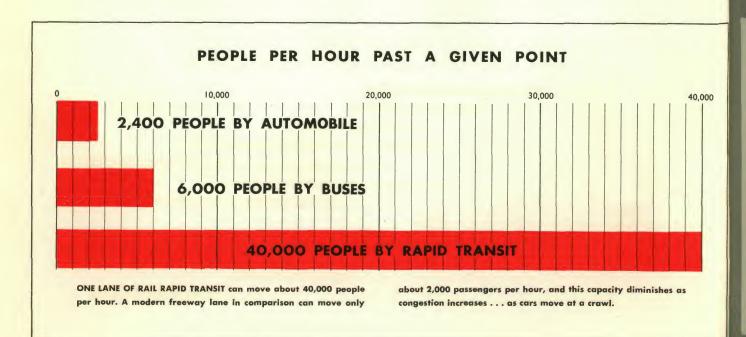
> Without RAPID TRANSIT, there is mounting evince to indicate that the Bay Area will not live up to our fond hopes of the future for our economic base is built upon the free and efficient movement of people

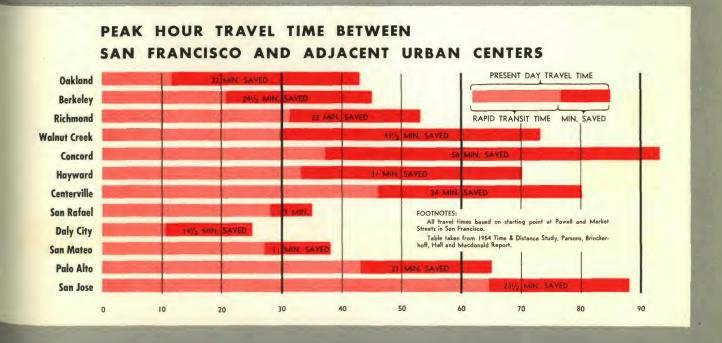
> The accompanying graph shows how RAPID TRANSIT would literally "shrink" the Bay Area through amatic savings in travel time between various points. RAPID TRANSIT can achieve these time savings be-



operate over entirely private and grade-separated rightsof-way. Thus, they would neither contribute to nor be affected by the mounting congestion on city streets and

And time tables would be unnecessary for the trains would operate as frequently as every 90 seconds during





What's Happening NOW?

The San Francisco Bay Area Rapid Transit District, comprising the Counties of Alameda, Contra Costa, Marin, San Francisco and San Mateo, is developing a RAPID TRANSIT plan to submit to the voters as soon as possible—perhaps in 1960. The final decision will be up to YOU and the other voters of the Bay Area.

The District, governed by a 16man Board of Directors appointed by the boards of supervisors and city councils of the five counties, is building its plans on the important foundation laid by the former nine-county Bay Area Rapid Transit Commission. Created as a fact-finding body by the Legislature in 1951, the Commission went out of existence in December, 1957, after establishing that there definitely is a need for interurban RAPID TRANSIT in the Bay Area, defining the present and future areas that should be served and, most important, determining that the cost of such a system is justified and would be less expensive and infinitely more desirable than the alternative of doing nothing.

The Commision attacked its task by assembling a force of highly qualified engineers, planners, economists and other experts. They made a complete planning study of the Bay Area

Should you desire further information on RAPID TRANSIT, please contact the Bay Area Rapid Transit District office, 628 Flood Building, San Francisco, telephone YUkon 2-9838.

The District publishes a monthly information bulletin and can make available speakers and a 27-minute motion picture on rapid transit to clubs and organizations.

—the first such study every made—and drew up a master plan of development, taking into account the aspirations and plans of all of the counties and their cities. Only then did they start to develop a RAPID TRANSIT plan to serve the anticipated population, travel demands and planning goals.

Finally recommended was the basic 123-mile system shown on Page Three, with provisions for its expansion later into the outlying Counties of Santa Clara, Napa, Solano and Sonoma.

Subways were recommended for the dense, heavily built-up sections of downtown Oakland and San Francisco with an underwater tube across the Bay tying together and making possible a travel time of *only* 11½ minutes between the twin "core" cities of the Bay region.

In outlying and less densely builtup sections, rails would be laid on the ground where possible and on graceful elevated structures where necessary to take advantage of existing ground-level rights-of-way.

The system would provide a main, trunk-line service by tapping the centers of population and employment concentrations. Stations would be spaced at an average of about every two miles at places determined to be the most convenient to the most number of users. Suburban stations would have parking lots with capacities up to 1,000 automobiles, and there would be convenient transfer facilities at all stations for feeder bus lines which would radiate into the surrounding areas to provide local service.

By providing transportation that would be faster, more economical and more comfortable than driving, the proposed RAPID TRANSIT system would make it possible—even in a Bay Area with a population double what it is today—for people to live where they want and to work where they want without limiting choice of either residence or job.

The experts who studied the problem for more than two years and recommended RAPID TRANSIT as the Bay Area's only solution to congestion did not mince words. They declared:

"Without rapid transit, the Bay Area will ultimately pay many times its cost in additional hours of travel time, in the additional cost of trucking goods over highways congested by automobiles, in diminished revenues from property depreciated by congestion or swallowed by automobile facilities, and in the premium costs of urban freeways and parking garages.

"We do not doubt that the Bay Area citizens can afford rapid transit; we question seriously whether they can afford *not* to have it."



SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

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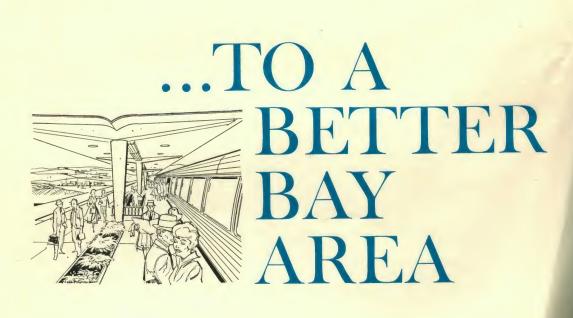
ALAMEDA COUNTY Arnold C. Anderson Clair W. MacLeod George M. Silliman Sherwood Swan

CONTRA COSTA COUNTY
H. L. Cummings
Marvin A. Joseph
Harry L. Morrison, Jr.

MARIN COUNTY John C. Beckett T. J. De Lasaux

SAN FRANCISCO COUNTY Allan E. Charles Arthur J. Dolan, Jr. Adrien J. Falk Thomas Gray

SAN MATEO COUNTY Thomas F. Casey, Jr. Robert Higgins Joseph G. Hunter



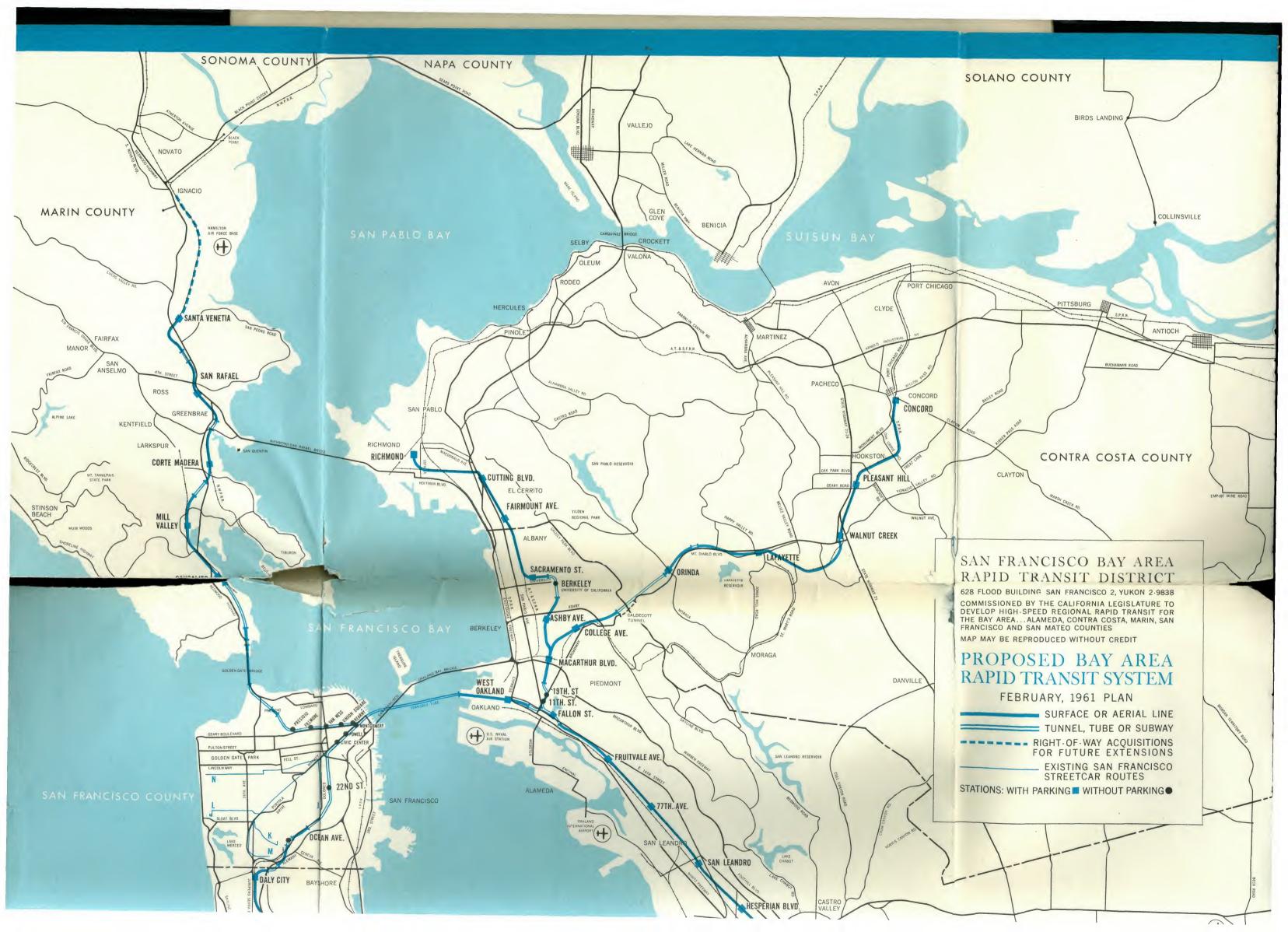
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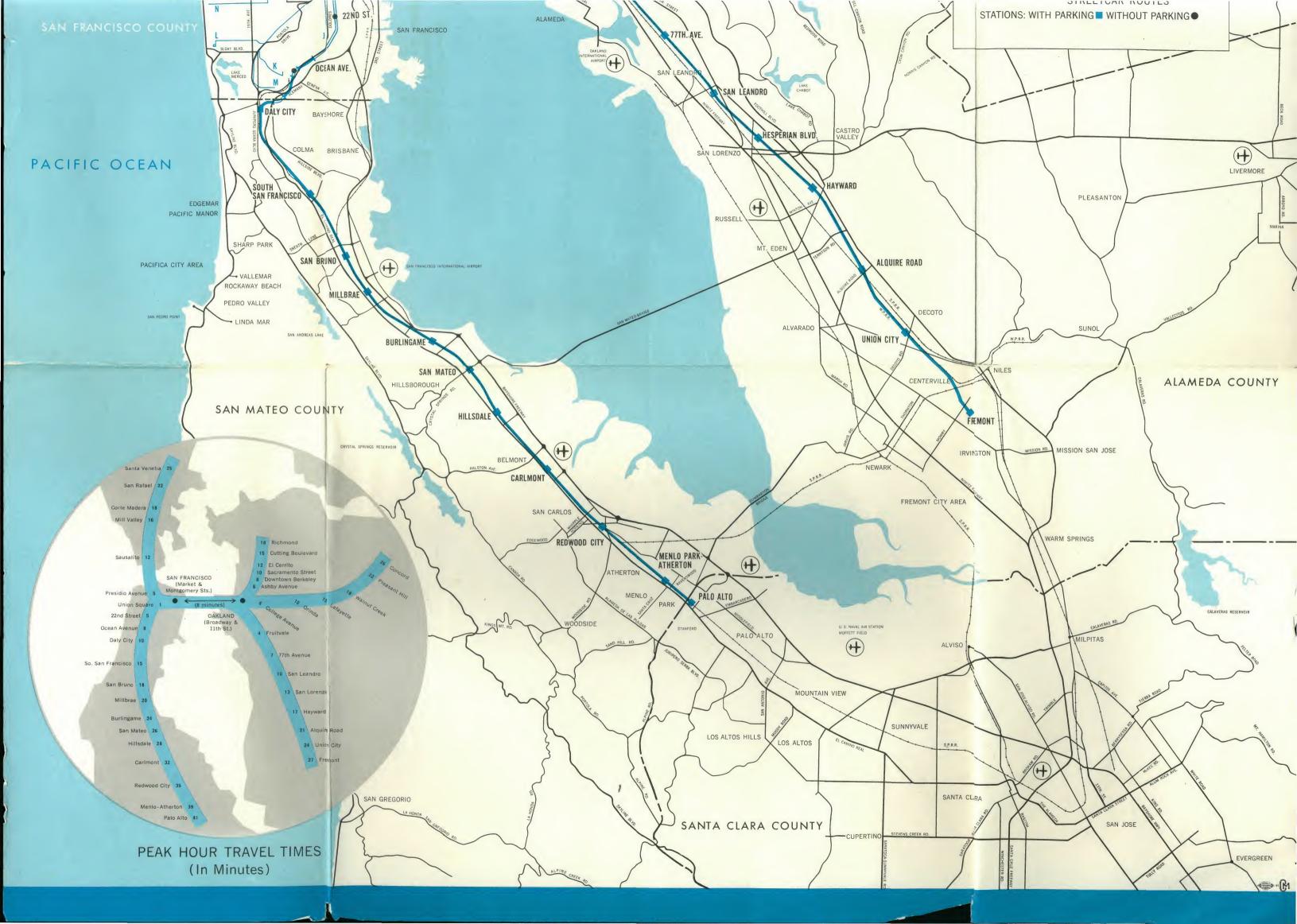
Such measures perhaps could be good rail rapid transfe, a substantia couping the composition which produces could be left at base.

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Angle transit, operating free congestion, will provide an attraction absorb many of those computers who congestion during the 20 peak normal rapid tennait, more and more workers and, eventually, treats such chaotic





Details of the proposed financing will be a major part of the final plan adopted by the District's Board of Directors. This plan will be submitted to the Boards of Supervisors of the five counties in the District in 1961. These boards may take six months to hold public hearings and study the plan before rejecting or approving it. Only when the boards have given their approval can the plan be submitted to the electorate. Although a definite date for this election cannot yet be established, it probably will come in June, 1962.

Two outstanding financial consulting firms – Smith, Barney and Company, of New York, and Stone and Youngberg, of San Francisco – are developing a plan of financing the construction of the system. The major objective is to spread the cost over the property tax, the fare box and other possible sources to the end that the most equitable possible financing can be developed.

It also is important to note that, once it is built, rapid transit will be considerably more than self-supporting from a standpoint of operating and maintenance costs, with surplus revenues available for a variety of uses.

While this cost figure seems high, it is important to note that approximately the same amount of money will be spent next year alone on State Highways and local streets in California.

Capital cost of the system as now proposed is \$1,025,000,000, including funds for the advance purchase of rights-of-way and ample provisions for contingencies and anticipated inflation in the costs of materials and labor.



The present Rapid Transit District was created as a five-county regional public agency by the State Legislature as a result of the studies by the Commission.

Today's critical peak-hour congestion will become increasingly worse as more and more suburban residents travel greater and greater distances to jobs in the central "core," mingling with the increasing reverse flow of central city commuters to jobs in outlying manufacturing plants and with the growing flow of commuters from one suburban point to another suburban point within the Bay Area.

Most of the population growth will be absorbed in the outlying suburban areas, and single-family homes will stretch out farther and farther from the central "core." At the same time, certain suburban areas will continue to attract an increasing number of manufacturing plants which require large amounts of land.

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You—and the other residents of the Bay Area—will go to the polls in the not-too-distant future to make one of the most important civic decisions you probably ever will make: whether to construct the world's most modern regional rapid transit system in the counties of Alameda, Contra Costa, Marin, San Francisco and San Mateo.

That is the bare issue. But implicit in it are effects that will determine whether congestion is to become a permanent evil... a determination that will bear directly on the pocketbook, tax bill, way of life and standard of living of the Bay Area citizen of today, 1980, 2000 and beyond.

With rapid transit, the Bay Area will have an attractive supplement to the private automobile which will provide a truly balanced transportation system. Transportation experts agree that such a system offers the only hope of ending congestion problems.

With rapid transit, those who now drive only because they have no other choice will be able to travel via rapid transit—swiftly, comfortably and safely. Those who must drive will be able to do so on congestion-free freeways, highways and streets.

With rapid transit helping to move *people*, the constant pressure for more and more freeways, highways and parking facilities to accommodate *machines* will be lessened materially. And this will mean less ultimate cost to taxpayers, more land retained for homes and businesses and industries, and less land removed from productive use and the tax base.

Without rapid transit, the Bay Area by default will have chosen an unbalanced transportation system which provides no real choice but the private automobile. Such a course must, inevitably and inescapably, lead to ever greater congestion, continued removal of scarce land for vast highways and parking projects—and, consequently, a steadily shrinking tax base—reduced job opportunities, ever-widening urban "scatteration" and a host of other costly consequences which would make the Bay Area a much less attractive place in which to live and work and raise a family.

Your decision on this question of rapid transit, then, must be a thoughtful one.



BAY AREA RAPID TRANSIT DISTRICT

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These are, you will agree, high operating standards. They are designed to accomplish one objective — to provide transportation superior to the private automobile in terms of speed, convenience, comfort, economy and safety.

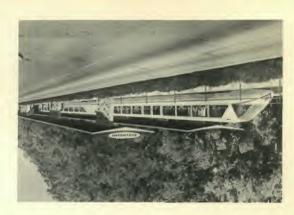
• Designed to operate under automatic control from a central "electronic brain" which will insure the high-est standard of service and safety for patrons. This "electronic brain" also will make possible the incorporation of a "ride now — pay later" plan under which regular commuters will be billed monthly.

• Designed to operate as frequently as every 90 seconds during peak hours and carry 30,000 seated passengers per hour in each direction. The two-way capacity of the system will be equivalent to 30 to 40 lanes of freeways for people traveling in automobiles at the current occupancy average of 1.5 persons per carrent occupancy average of 1.5

 Capable of top speeds of 80 miles an hour and of scheduled average speeds, including station stops, of 50 miles an hour — twice as fast as any existing transit system.

• Constructed of aluminum or lightweight stainless steel . . . designed to appeal to the eye, provide maximum comfort and be virtually noiseless in operation.

Over this extensive system of private rights-of-way, electrically-powered trains would operate entirely free of congestion at all times to provide guaranteed travel times. These trains would be:





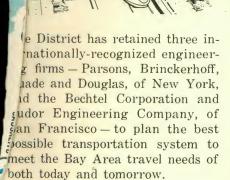
There are 51 stations on the firststage system. All outlying stations have spacious parking areas and convenient transfer facilities for feeder buses which will operate throughout surrounding residential areas.

As you will note, routes fan out to all parts of the five counties from the key link in the system—the fourmile underwater trans-Bay transit tube which connects the subway complexes of downtown San Francisco and Oakland and ties together the entire system. Under legislation already passed by the State Legislature, and approved by Congress, construction of the tube portion of the project will be financed by a portion of the surplus automobile tolls collected on the San Francisco-Oakland Bay Bridge.

commuter hours on workdays.

Accompanying the map is a diaram which shows how rapid trantam which shows how rapid trantit, operating entirely free of concestion, would slash travel times benatic illustration of how rapid transit literally would shrink the Bay rea, compare the guaranteed times in the chart with the time it now in the chart with the time that when the chart which is a specific transit of the chart which the chart with the chart which the chart with the chart with

n tunnel through difficult terrain, n graceful aerial structures where o other solution is feasible and rade-separated at ground level. The olid lines trace the 120 miles of outes scheduled for first-stage contruction, and the dashed lines indights-of-way which will be acquired ights-of-way which will be acquired of permit the earliest possible extension of the Marin Line.



The map on the inside fold traces the routes and the locations of stations as now proposed. The routes are underground in subway to pro-'a direct delivery to the hearts of y built-up downtown sections,

in tunnel through difficult terrain, on graceful aerial structures where no other solution is feasible and grade-separated at ground level. The solid lines trace the 120 miles of routes scheduled for first-stage construction, and the dashed lines indicate an additional four miles of rights-of-way which will be acquired to permit the earliest possible extension of the Marin Line.

Accompanying the map is a diagram which shows how rapid transit, operating entirely free of congestion, would slash travel times between Bay Area points. For a dramatic illustration of how rapid transit literally would shrink the Bay Area, compare the guaranteed times on the chart with the time it now takes you to make trips by automobile or public transit during peak

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BAY AREA RAPID TRANSIT DISTRICT



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by the time you are asked to make your decision, decade will have been devoted to intensive studes of all aspects of Bay Area congestion probems—first by the San Francisco Bay Area Rapid ransit Commission and now by the San Fransco Bay Area Rapid Transit District.

The Commission retained outstanding experts conduct the most thorough studies ever made the many complex factors - population owth, land use, employment projections, travel ta, economic indices, master planning, etc. hich contribute to metropolitan area transportion patterns.

The studies determined that the Bay Area n expect to double in population — to a total more than 7,000,000 - in the next 20 to 25 ars and that chaotic congestion is in prospect.

The Bay Area's central "core" - San Fransco, Oakland and Berkeley — will continue to id jobs at a very fast rate, but the resident pulation will remain relatively static, or even decline. At least 60 per cent of all jobs in the Bay Area are in these three central cities.

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